

UHIMI NEWS

Update on EPA-Urban Heat Island Pilot City Accomplishments

First EPA/Pilot City biweekly conference call held June 17

Call participants

Julie Bedford, ICF
(jbedford@icfkaiser.com)
Maury Estes, NASA
(maury.estes@msfc.nasa.gov)
Virginia Gorsevski, EPA
(gorsevski.virginia@epa.gov)
Mark Guillory, Baton Rouge,
Louisiana (guillmark@aol.com)
Mary Beth Kennedy, ICF
(mkennedy@icfkaiser.com)
Meryl Redisch, Salt Lake City,
Utah (mredisch@treelink.org)
Camille Russell, Salt Lake City,
Utah (crussell@dcad.state.ut.us)
Tom Whitney, Sacramento, CA
(Tree Foundation)
(sactree@mother.com)

Call Agenda

Ms. Gorsevski welcomed everyone to the conference call and proposed that it occur every other Wednesday. It was agreed that the main focus of the calls would be each city's action plans. Technical issues or specific questions can be addressed through direct contact with the appropriate players.

Ms. Gorsevski suggested that each pilot city provide an update/status report on the development of each city's action plans during the course of the call.

Flyovers

- The flyover in Baton Rouge occurred on _____.
- The flyover in Sacramento is scheduled for June 29, 1998.
- The flyover in Salt Lake City is scheduled for early July.

Upcoming Conferences/Meetings

Ms. Gorsevski mentioned that there are two workshops in October:

The Cool Communities Conference, held in Tucson, AZ on October 14-16, 1998, is part of the Sustainable Solutions Workshop Series, and is called **Hot Topics/Cool Solutions**. The agenda is still in development. Rachel Schmeltz from the Energy Star Roofs Products Program will make a presentation. Roofing products representatives, paving contacts, and urban foresters will all be in attendance, as well as representatives from NASA, Hashem Akbari, and Art Rosenfeld. Ms. Gorsevski suggested to the

Hot Topics/Cool Solutions conference planner that a panel of pilot city representatives could be convened that focuses on implementation issues — the conference represents an opportunity to inform about the initiative.

Tom Whitney and Ray Tretheway saw a demonstration of a GIS-based program that estimated costs and benefits from tree planting activities. It was developed by Andy Lipkis and Jeff Wallace of Earth View, an environmental computing company. Lipkis and Wallace are both tree representatives from Los Angeles, and can be reached at 310-393-9578. Hot Topics/Cool Solutions may be a good forum for introducing and demonstrating this program. The software program includes up to 550 different inputs related to urban heat islands, trees,

VOCs emitted by trees, etc. Perhaps a breakout session or demonstration could be arranged to showcase the program.

Ms. Russell attended a 10-week seminar on City Green — she prepared a list of observations/challenges associated with the software for American Forests to review. It may be worthwhile to compare Earth View's program with the City Green program. Salt Lake City may be interested in incorporating City Green into the newer GIS-based program. Ms. Gorsevski mentioned that ICLEI had originally planned to hold its annual meeting in Tucson where they would showcase their own software program.

The Earth Technologies Forum, held on October 26-28, 1998, in Washington, DC, will include a 90 minutes session during which EPA may launch the Energy Star Roofs Products Program. Background materials on the forum are available at www.earthforum.com. Ms. Gorsevski wants to use the Forum as an opportunity to convene a meeting with pilot cities and other cities and state and local players.

Ms. Russell mentioned that on October 24-28, 1998, there is an American Forests Conference in Wintergreen, VA. Information on this conference is not yet available on the web.

City-Specific Updates

Ms. Gorsevski noted that Paul Stolpman, Office of Atmospheric Programs should sign all MOAs; three originals should be sent to Ms. Gorsevski.

Baton Rouge

- Mr. Guillory asked for advice on how to get people to recognize that there is an urban heat island problem. Tom Whitney said that they conducted a parking lot study that put thermometers in cars in shaded vs. unshaded parking lots. He is also working with a local radio station, Cool 101, in running a contest to name the hottest place in Sacramento. Ms. Russell mentioned that the Atlanta project used a shadow ban radiometer (infrared) to put a false color image onto areas of intense heat. They took site specific measurements and videotaped the procedure. The video has been a useful tool in Salt Lake City. Ms. Russell promised to make copies and send one each to Mr. Whitney and Mr. Guillory.
- Mr. Guillory had prepared an agenda for the action plan. Mr. Whitney and Ms. Russell wanted a copy of this agenda.
- Mark Guillory had received preliminary, uncalibrated data from NASA that shows hotspots within one and one half square miles around Baton Rouge. He gave a copy of the data to John Fine at LSU, who is working with a graduate student to analyze the preliminary data. The draft agenda for the action plan outlines the city's plan for analyzing the data it will receive. A three-step approach will be used in the analysis.
- Ms. Redisch asked whether Baton Rouge was conducting any groundtruthing efforts to

corroborate the data it receives. Mark agreed that that would be ideal, and Ms. Russell mentioned that in Salt Lake City, groundtruthing was occurring prior to and after the flyover.

Sacramento

- Mr. Whitney has been experiencing difficulties in lining up school sites. He is in the process of identifying rooftops available for temperature readings next week.
- The city has signed on to the MOA, and has made a number of presentations to the Council supervisors and Council, who are very interested in the program.
- Mr. Whitney had participated in a useful session with the Energy Commission's public relations department on how to handle the local angle when the NASA jet is in the city. The day of the flyover will be dominated by the NASA publicity machine; however, on Thursday of next week, they are aiming to have local TV stations film kids practicing taking temperatures at one site. Factsheets, press releases, and media advisories have all been prepared. It is a challenge to get the local story out in the face of the NASA-dominated publicity, and to try to sell the long-range program. All agreed that it is important to focus on how to communicate with media and how to get the important soundbites across.
- Mr. Whitney noted that the Air Quality Management

District has half a dozen stations where ozone and temperature readings are taken. Arrangements are being made to get those readings fed back to the city. He noted that the involvement of meteorology departments at universities is a good option.

Salt Lake City

- Ms. Russell delivered a draft outline of Salt Lake City's action plan via e-mail on June 17, 1998.
- Ms. Russell and Ms. Redisch are working to identify some of the rooftops where sampling equipment will be placed. On June 16, 1998, a meeting was held with participating educators for the school coordination project.

on.

- Salt Lake City is conducting random ground sampling measurements in addition to schoolchild measurements. They are working closely with the Department of Meteorology at the university, which has a system called Mesonet. They have temperature sensors all over the valley which feed temperature readings to staff at the Mesonet station who overlay the information on a temperature map. The end result constitutes groundtruthing.

Next Steps

each city can best effect change.

One of the suggestions on the action plan outline is for each pilot city to develop a steering committee. At an appropriate time, different task groups could form to tackle specific issues. **It is not too early to begin thinking about potential policies and programs to be developed in each pilot city.**

Ms. Redisch noted that Salt Lake City wants to break down its assumptions according to whether the roofing surface is commercial, industrial, or residential. Likewise it anticipates breaking down assumptions for paved surfaces by roads, parking lots, driveways, etc. The specific type has an impact on the kind of products used for each area.

- The coordinators for the University of Utah Geography Department are adding a secondary analysis to the school coordination analysis. They are dividing the study area into several sections and taking various air temperature measurements on many different urban surfaces to substantiate the data received from the schools.
- They are working to add a few more individuals to their MOA. As partnerships become more formalized, they are added to the existing MOA by an addendum. The University of Utah's Geography Department, the University of Utah's Meteorology Department, and the Utah State University are signing

If cities start collecting information now, they will be in a better position to quickly corroborate and verify the flyover data.

Ms. Gorsevski noted that Taha at LBNL has completed much of the baseline analysis for Baton Rouge on albedo, the overall tree cover, etc. He will soon complete the baseline analyses for Sacramento and Salt Lake City. He is in a good position to run the model; however, he will need assumptions related to the urban fabric analysis from each pilot city, i.e., percentage breakdown between vegetation, roofs, and pavement, etc. The ultimate goal is to be able to provide Taha with a realistic but rough estimation of the percentage of rooftops, pavement, and landscaping that can be modified. The goal of the action plan is to discern where

Ms. Redisch also mentioned that urban heat islands tend to occur in the poorer sections of cities. She noted the challenges involved in trying to implement changes in those specific areas. Many mentioned that tree foundations sometimes start with the "empowerment zone." Mr. Guillory noted that a particular hotspot for Baton Rouge was the LSU campus. He found that islands tended to occur where there are large parking lots, large buildings, old technology rooftops, shopping centers, major downtown areas, and strip malls. A good start for an implementation strategy would be ordinances for the reroofing of state and local buildings.

